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Climate change, deforestation and the fate of the Amazon rainforest

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The Amazon rainforest is a crucial component of the Earth's system; one which faces the dual threats of climate change and deforestation. Now, scientists across a number of disciplines have joined together to assess these threats with their findings published today (Thursday) in *Science*. Climatologists, sociologists and ecologists have worked to explore the consequences for the forest ecosystem and its human population and outline future options.

The work, led by Prof. Yadvinder Malhi of Oxford University Centre for the Environment, looks at the consequences for the rainforest from every angle, focusing not just on how climate change may degrade the forest and the likely impacts of deforestation on regional and global climate, but also on the balance between human pressures and forest resilience.

The scientists also offer a range of ideas to combat climate change in the region, ranging from well-managed clearance programmes with limited fragmentation, through maintaining broad species migration and river corridors, to maintaining a biological refuge by keeping intact the areas least vulnerable to climatic drying.

The paper has added significance as the world's leading climate scientists gather for the UN Conference of the Parties (COP13) from 3 December 2007, where the issue of deforestation is likely to be high on the agenda. The Met Office will participate in side events at the conference.

Met Office climate scientist, Dr Richard Betts, a joint author on the paper, said: "The Amazon is facing threats on two fronts - climate change and direct deforestation - and the future of forests is likely to be a key topic at the UN conference in Bali. Reducing further deforestation could slow global warming, maintain rainfall and conserve biodiversity."

Notes

- There will be a 'Forests Day' side event at COP13 on Saturday 8 December 2007.
- Richard Betts will speak at two separate side events:
  - *Biodiversity-climate interactions: adaptation, mitigation and human livelihoods* Thursday 6 December 2007
  - *Climate research at the Met Office Hadley Centre: new science to inform policy* Tuesday 11 December 2007
- Yadvinder Malhi will speak at a side event on Friday 7 December 2007 *How can we get more GHG emissions out of the atmosphere and contribute to sustainable development?*

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